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| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/050,597 | YAMAZAKI ET AL. | |
| | Examiner | Art Unit | |
| | Jennifer M. Dolan | 2813 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amdt. of 6/24/04.
2. ☒ The allowed claim(s) is/are 1-22, 24-30, 32-38 and 40-68.
3. ☒ The drawings filed on 15 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date <u>6/30/04</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

This action is in response to the Amendment filed 6/24/04

Allowable Subject Matter

1. Claims 1-22, 24-30, 32-38, and 40-68 are allowed.
2. The following is an examiner's statement of reasons for allowance: Regarding claims 1, 2, 4-6, and 8, the primary reason for allowance is that the claim language requires that a pixel electrode and a storage capacitor be formed over an interlayer insulating film covering a thin film transistor, and that the pixel electrode and capacitance wiring line are formed on the same interlayer insulating film. The prior art typically teaches the placement of a capacitor structure at a same level as the TFT, and thus well below the level of the pixel electrode (see, for example, U.S. Patent No. 6,521,913 to Murade) or above the TFT, but still below the level of the pixel electrode (see U.S. 6,495,886 and 6,490,014). It is the examiner's opinion that placement of such features as the pixel electrode and storage capacitor wiring lines is highly critical, since the specific placement affects crucial parameters, such as the pixel aperture ratio, the leakage current, the total storage capacity, and the fabrication complexity of the pixel, and thus, the specific placement is not arbitrary or obvious without a specific prior art suggestion of such. Since the prior art fails to specifically teach a pixel having the capacitor and pixel electrode configuration specified in the claims, and since such an arrangement provides simpler fabrication complexity by permitting the pixel electrode and one capacitor line to be formed from the same

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film, as well as maintaining a favorable aperture ratio and storage capacity, it is the examiner's opinion that such a configuration would not have been obvious to a person skilled in the art.

Claims 9-22, 24-30, 32-38, and 40-68 were allowed in the office actions of 4/10/03, 11/26/03, and 3/24/04.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer M. Dolan whose telephone number is (571) 272-1690. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W. Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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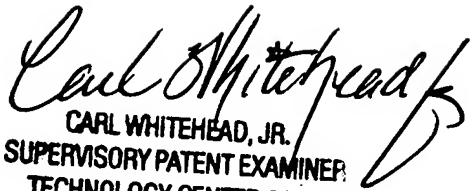
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Jennifer M. Dolan

Examiner

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jmd


CARL WHITEHEAD, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800